

3.1.4 Herptile Species of Greatest Conservation Need

3.1.4.1 Overview

There are 56 native herptile species in Wisconsin. Of these 56 species, 24 (43%) have been identified as Species of Greatest Conservation Need in Wisconsin. Ten of these species are listed as Threatened or Endangered at the state level. Species of Greatest Conservation Need are divided into three groups based on their relative abundance in Wisconsin in comparison with the rest of their range. These divisions address the global role Wisconsin plays in the conservation of these species but leave options open for management.

Table 3-4. Herptile Species of Greatest Conservation Need

Species with a high relative abundance in Wisconsin compared with the rest of their range		
Common Name	Scientific Name	Page
Blanding's Turtle	<i>Emydoidea blandingii</i>	3-237
Butler's Garter Snake	<i>Thamnophis butleri</i>	3-260
Species with a moderate to low relative abundance in Wisconsin compared with the rest of their range		
Common Name	Scientific Name	Page
Four-toed Salamander	<i>Hemidactylium scutatum</i>	3-222
Mudpuppy	<i>Necturus maculosus</i>	3-224
Blanchard's Cricket Frog	<i>Acris crepitans blanchardi</i>	3-226
Boreal Chorus Frog	<i>Pseudacris maculata</i>	3-228
Pickerel Frog	<i>Rana palustris</i>	3-230
Mink Frog	<i>Rana septentrionalis</i>	3-232
Wood Turtle	<i>Glyptemys insculpta</i>	3-234
Ornate Box Turtle	<i>Terrapene ornata</i>	3-239
Midland Smooth Softshell Turtle	<i>Apalone mutica</i>	3-241
Western Slender Glass Lizard	<i>Ophisaurus attenuatus</i>	3-243
Northern Prairie Skink	<i>Eumeces septentrionalis</i>	3-245
Prairie Racerunner	<i>Cnemidophorus sexlineatus virdis</i>	3-247
Yellow-bellied Racer	<i>Coluber constrictor</i>	3-250
Prairie Ringneck Snake	<i>Diadophis punctatus amnyi</i>	3-252
Black Rat Snake	<i>Elaphe obsoleta</i>	3-254
Bullsnake	<i>Pituophis catenifer sayi</i>	3-256
Queen Snake	<i>Regina septemvittata</i>	3-258
Northern Ribbon Snake	<i>Thamnophis sauritus</i>	3-263
Timber Rattlesnake	<i>Crotalus horridus</i>	3-265
Eastern Massasauga Rattlesnake	<i>Sistrurus catenatus catenatus</i>	3-267
Species with a very low relative abundance in Wisconsin compared with the rest of their range		
Common Name	Scientific Name	Page
Western Worm Snake	<i>Carphophis amoenus</i>	3-249
Western Ribbon Snake	<i>Thamnophis proximus</i>	3-262

3.1.4.2 General Threats, Issues and Conservation Actions

General Threats and Issues Affecting Herptile Species of Greatest Conservation Need

Habitat degradation and loss is one of the primary threats facing herptile Species of Greatest Conservation Need in Wisconsin. Disturbance, degradation and fragmentation of riparian, shoreline and instream habitat is caused by many factors, including agricultural run-off, increased impervious surfaces resulting from urban and residential development, and intensive grazing. The conversion of suitable upland nesting habitat (e.g., sand prairies) to agricultural land has resulted in significant habitat loss for many species.

Health issues are also a concern for herptiles and include viral, bacterial, and fungal diseases; toxicities and pollutants; skeletal and developmental malformations; trauma; and parasitism. Invasive species can negatively impact herptiles in a variety of ways. For example, invading reed canary grass and giant reed grass may simplify habitats, lowering wetland and shoreline habitat quality. Pollution from a variety of sources, including mercury, acid rain, salt, nutrient loads, and fossil fuel spillage may all negatively impact aquatic systems and species. While there are many unknowns, the net impacts of climate change, including expected warmer and drier conditions in our state, are probably negative for some species. Specific threats affecting individual herptile Species of Greatest Conservation Need are listed on the following pages.

General Conservation Actions for Herptile Species of Greatest Conservation Need

Herptiles use a wide variety of habitats from sand prairies to streams to ephemeral ponds; restoration, management and protection of these diverse habitats are the primary actions proposed for conserving herptile Species of Greatest Conservation Need in Wisconsin. A wide variety of efforts will be needed to restore, conserve and protect these habitats, from management of prairies to reduce impacts of natural succession to excluding cattle from streams and streambanks to reducing densities of invasive plants such as reed canary grass in wetland areas. Changes in laws and policies are needed to protect our herptile Species of Greatest Conservation Need, ranging from altering roadside mowing practices to reduce mortality of some species to more protective shoreline zoning ordinances to protect aquatic and riparian habitats. Health concerns for herptiles need to be addressed by developing appropriate response strategies to unusual and or acute mortality outbreaks, collaborative partnerships with groups and individuals with knowledge of reptile and amphibian disease and biology, and a system utilizing community participation to alert the appropriate agencies of unusual and or acute mortality outbreaks. Additional inventory, research, and long term monitoring work is needed to more effectively work to conserve nearly all herptile Species of Greatest Conservation Need and their habitats. Specific conservation actions proposed for individual herptile Species of Greatest Conservation Need are listed on the following pages.

References for Specific Threats, Issues and Conservations Actions for Herptile Species of Greatest Conservation Need

The following references, along with other sources, personal observations and unpublished data, provide background or justification for specific threats and conservation actions listed on the following pages for the individual herptile Species of Greatest Conservation Need.

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